

Amendments to the Claims

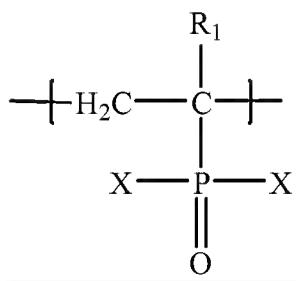
This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) Method for inhibiting magnesium hydroxide scale formation on structural parts in contact with an aqueous salt containing medium in a desalination system comprising:

adding to said aqueous salt containing medium in the system a treatment, said treatment comprising

(a) a phosphono functional polymer I including a repeat unit of the structure



wherein R₁ is H or lower alkyl of from about 1 to 6 carbon atoms and wherein X is OH, or OM wherein M is a cation; and wherein Mw for the phosphonate polymer (I) ranges from about 500 to 50,000;

b) a carboxylate containing polymer II; and

c) a dispersant;

wherein said aqueous salt containing medium comprises magnesium cations and hydroxide anions under conditions in which, in absence of treatment, Mg(OH)₂ scale would form on said structural parts;

whereby the method inhibits formation of Mg(OH)₂ scale on the structural parts of the desalination system without the use of mineral acid doping.

2. (Canceled)

3. (Currently amended) Method as recited in claim ~~2~~ 1 wherein said phosphono functional polymer I comprises a second repeat unit formed from polymerization of a nonphosphonate monomer (F).

4. (Original) Method as recited in claim 3 wherein said non phosphonate monomer (F) is a member selected from the group consisting of (i) carboxylate monomers, (ii) sulfonate monomers, (iii) amides, and (iv) allylethers and sulfonate and phosphate allyl ethers.

5. (Currently amended) Method as recited in claim 4 wherein said non phosphonate monomer (F) is a carboxylate monomer, ~~said treatment further comprising a carboxylate polymer II, said phosphono functional polymer I and carboxylate polymer II being added to said aqueous medium in a combined amount I and II of about 1-500 ppm.~~

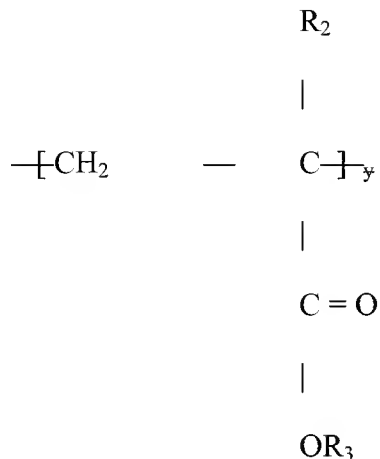
6. (Currently amended) Method as recited in claim ~~5~~ 1 wherein said carboxylate polymer II is a polymaleic acid or anhydride thereof.

7. (Canceled)

8. (Currently amended) Method as recited in claim ~~7~~ 1 wherein said phosphonate phosphono functional polymer I is poly(isopropenylphosphonic acid).

9. (Currently amended) Method as recited in claim ~~8~~ 1 wherein said phosphono functional ~~phosphonate~~ polymer I is poly(vinylphosphonic acid).

10. (Currently amended) Method as recited in claim 9 1 wherein said phosphono functional ~~phosphonate~~ polymer (I) comprises a copolymer having a repeat unit (F) of the structure



wherein R₂ is H or CH₃, and R₃ is H or a cation.

11. (Canceled)

12. (Canceled)

13. (Canceled)

14. (Currently amended) Method of inhibiting magnesium hydroxide scale formation in a desalination system in which an aqueous salt containing medium is brought into contact with system equipment, comprising adding to said aqueous medium a treatment comprising

- a) polymer of isopropenylphosphonic acid;

b) a carboxylate containing polymer of acrylic acid and its salts, maleic acid and its salts and anhydride, and copolymers or mixtures thereof,

c) a dispersant; and optionally a

e) phosphonate;

wherein said aqueous salt containing medium comprises magnesium cations and hydroxide anions under conditions in which, in absence of treatment, $\text{Mg}(\text{OH})_2$ scale would form on said system equipment; and

whereby the method inhibits formation of $\text{Mg}(\text{OH})_2$ scale on the system equipment of the desalination system without the use of mineral acid doping.

15. (Original) Method as recited in claim 14 wherein said carboxylate containing polymer is a polymaleic polymer or anhydride.